#### § 23.1149

# § 23.1149 Propeller speed and pitch controls.

- (a) If there are propeller speed or pitch controls, they must be grouped and arranged to allow—
- (1) Separate control of each propeller; and
- (2) Simultaneous control of all propellers.
- (b) The controls must allow ready synchronization of all propellers on multiengine airplanes.

### §23.1153 Propeller feathering controls.

If there are propeller feathering controls installed, it must be possible to feather each propeller separately. Each control must have a means to prevent inadvertent operation.

[Doc. No. 27804, 61 FR 5138, Feb. 9, 1996]

#### § 23.1155 Turbine engine reverse thrust and propeller pitch settings below the flight regime.

For turbine engine installations, each control for reverse thrust and for propeller pitch settings below the flight regime must have means to prevent its inadvertent operation. The means must have a positive lock or stop at the flight idle position and must require a separate and distinct operation by the crew to displace the control from the flight regime (forward thrust regime for turbojet powered airplanes).

[Amdt. 23-7, 34 FR 13096, Aug. 13, 1969]

## § 23.1157 Carburetor air temperature

There must be a separate carburetor air temperature control for each engine.

## $\S 23.1163$ Powerplant accessories.

- (a) Each engine mounted accessory must—
- (1) Be approved for mounting on the engine involved and use the provisions on the engines for mounting; or
- (2) Have torque limiting means on all accessory drives in order to prevent the torque limits established for those drives from being exceeded; and
- (3) In addition to paragraphs (a)(1) or (a)(2) of this section, be sealed to prevent contamination of the engine oil system and the accessory system.

- (b) Electrical equipment subject to arcing or sparking must be installed to minimize the probability of contact with any flammable fluids or vapors that might be present in a free state.
- (c) Each generator rated at or more than 6 kilowatts must be designed and installed to minimize the probability of a fire hazard in the event it malfunctions
- (d) If the continued rotation of any accessory remotely driven by the engine is hazardous when malfunctioning occurs, a means to prevent rotation without interfering with the continued operation of the engine must be provided.
- (e) Each accessory driven by a gearbox that is not approved as part of the powerplant driving the gearbox must—
- (1) Have torque limiting means to prevent the torque limits established for the affected drive from being exceeded:
- (2) Use the provisions on the gearbox for mounting; and
- (3) Be sealed to prevent contamination of the gearbox oil system and the accessory system.

[Doc. No. 4080, 29 FR 17955, Dec. 18, 1964, as amended by Amdt. 23–14, 38 FR 31823, Nov. 19, 1973; Amdt. 23–29, 49 FR 6847, Feb. 23, 1984; Amdt. 23–34, 52 FR 1832, Jan. 15, 1987; Amdt. 23–42, 56 FR 354, Jan. 3, 1991]

### §23.1165 Engine ignition systems.

- (a) Each battery ignition system must be supplemented by a generator that is automatically available as an alternate source of electrical energy to allow continued engine operation if any battery becomes depleted.
- (b) The capacity of batteries and generators must be large enough to meet the simultaneous demands of the engine ignition system and the greatest demands of any electrical system components that draw from the same source.
- (c) The design of the engine ignition system must account for—
- (1) The condition of an inoperative generator:
- (2) The condition of a completely depleted battery with the generator running at its normal operating speed; and